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COUPLING WITH ELASTIC BUMPERS MADE FROM RUBBER OR THE LIKE
[Kupplung mit elastischen Puffern aus Gummi o. dgl.]

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The invention relates to elastic couplings, in which bumpers made from rubber or the like are arranged for transmitting force.

In previously known constructions, the rubber bumpers are constructed and arranged in such a way that they come into effect with their entire mass immediately at the beginning of the force transmission, so that it cannot talk of a completely impact-free transmission.

These disadvantages are overcome by the subject matter of the invention, in that the force is now transmitted by means of I-shaped rubber bumpers, which have the effect that, at the beginning of the force transmission, first the elastic resistance of the outer and inner contact points produced by the concave configuration of the legs must be overcome by the metallic parts of the coupling, whereupon then, under full loading, the total transmission force of the now extended legs is further transmitted against the middle rubber connecting piece embedded between two radially offset sectors and is absorbed by this connecting piece.

In the drawing, the invention is shown in one embodiment. Shown are:

Figure 1, the arrangement of the rubber bumpers on one coupling half,

Figure 2, the section of this coupling half along line C-D in Figure 1,

Figure 3, the other coupling half equipped with the driver claws, and

Figure 4, the section through this coupling half along line A-B in Figure 3.

The known coupling is made from two coupling halves a and A, wherein, according to the invention, a holds I-shaped, elastic rubber bumpers e equipped with concave legs in the intermediate spaces d formed by its radially broken claw parts b, c. The rubber bumpers e to be inserted in a corresponding number are made from I-shaped blocks, whose flanges f, g have a concave shape against the adjacent metal sector, so that when the machine starts up, first the cushioning inherent to the two flange ends h, i is overcome, i.e., the elasticity inherent in the material due to the curved shape comes into effect in an

impact- and jerk-free way until the flange legs are extended. Then the higher pressure load comes onto the extended material and this load is absorbed by the now tensioned connecting pieces between the offset metal sectors.

The operation takes place as follows:

After the coupling half A equipped with the driver claws k has been pushed into the gaps x between the rubber bumpers, at the beginning of the force transmission the claws k are pressed against the hollow flange ends h, i, with the goal of first overcoming their inherent elasticity produced by the hollowing, by means of which the legs spring back in the rotational direction to extend, in order to transmit the additional, stronger pressure onto the connecting pieces now tensioned on all sides.

The rubber bumpers can also be shaped so that they have a current-insulating effect against the coupled machine in the use of electric motors.

Claim

Coupling with elastic bumpers made from rubber or the like, characterized by I-shaped bumpers, whose legs (f, g), which absorb pressure when force is transmitted and which are located between the coupling halves (a, A), have a concave shape on the end, while the connecting piece (e) is embedded between a pair of radially offset metal sectors (b, c) of the associated coupling half.

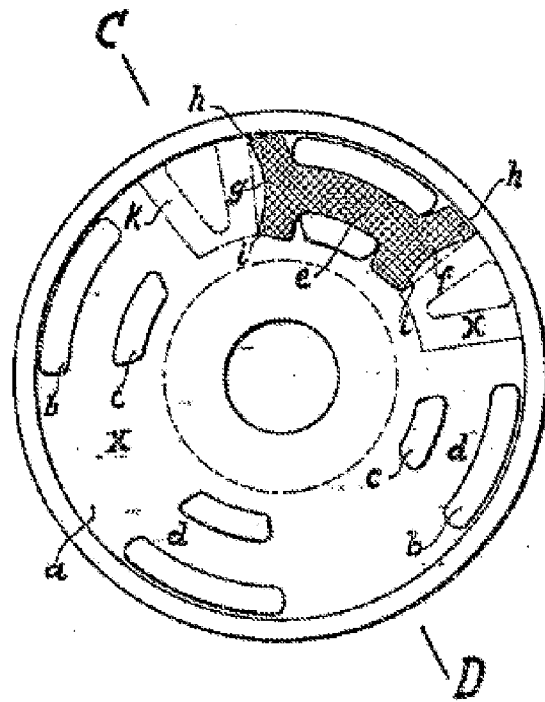


Figure 1

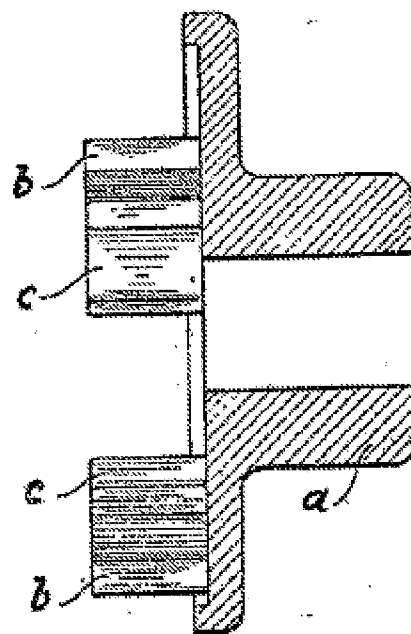


Figure 2

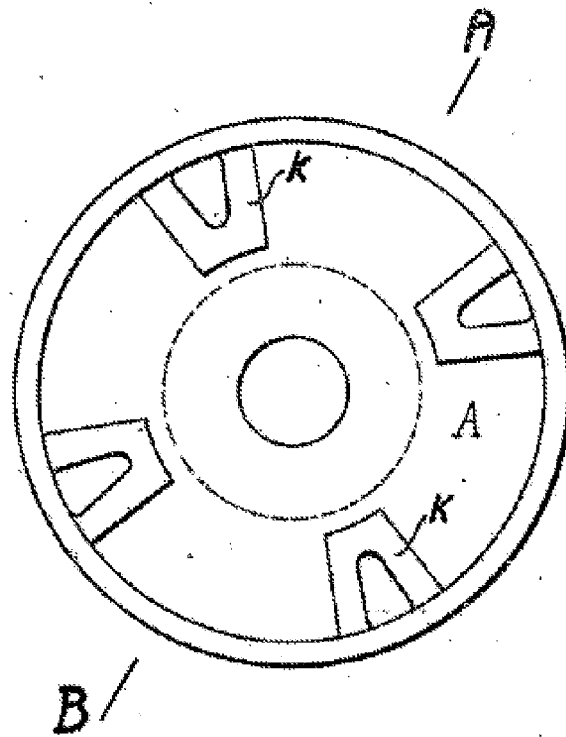


Figure 3

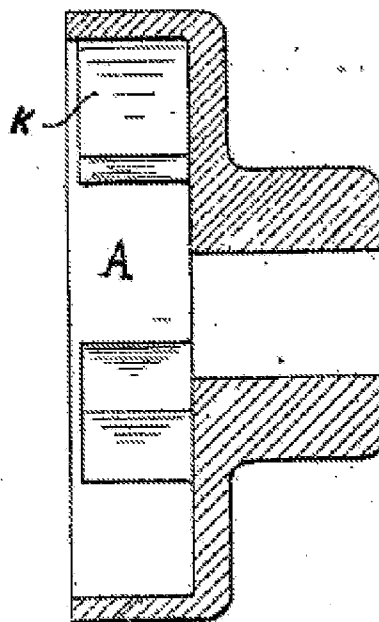


Figure 4